

Lord Adrian

Lord ADRIAN

MD, FRCP, FRS

Richard Hume Adrian, who died after a two year fight against cancer, was the only son of E D Adrian, who had been the leading neurophysiologist of his generation. E D Adrian's work began with the electrophysiological study of peripheral nerve and muscle and progressed through study of the impulse patterns of sensory and motor nerve fibres to that of the electrical activity of the brain itself. R H Adrian followed him to the extent that his work was on the electrical properties of muscle fibres, but he confined himself to this field, which has become an extremely complicated one.

The excitable membrane of skeletal muscle is invaginated to form the "transverse tubular system," a set of tubules, related to the striation pattern, that was well studied with the microscope at the beginning of this century but was lost sight of until rediscovered in the 1950s. The essential event in excitation is a change in electrical potential across the surface membrane, and this is conducted along the walls of these tubules to the interior of the fibre so as to activate the contractile material itself. The resulting complications include accumulation or depletion of ions within the tubules; distortion of electrical events by the electrical properties of the tubules; and, especially, the "charge movements" across their membranes that are an essential step in triggering the intracellular release of calcium ions from other elements of the sarcoplasmic reticulum to activate the contractile proteins. Adrian's principal method was electrical recording with intracellular microelectrodes, often combined with electronic feedback to control the internal potential of the fibre. Together with a series of collaborators, Adrian was a leading figure in the elucidation of these processes.

He also carried out two investigations of excitation in muscle fibres in myotonia, a condition due to abnormal ionic permeability.

Adrian was notably successful in three important administrative positions: master of Pembroke College, Cambridge; vice chancellor of the University of Cambridge; and a member of the House of Lords. As master, he had the task of chairing the regular meetings of the governing body, consisting of all the 50 or so fellows, and this he did with patience and fairness. He piloted through the change of the college statutes that allowed women to become members (1982). He was approachable to all, and with his wife he gave much friendly hospitality to students.

He was vice chancellor of the university at a crucial time, when the universities, and Oxford and Cambridge in particular, were under attack. He successfully defended them against the proposal that the amount of fees received by colleges should be deducted from the grant to the university.

He was active as a member of the House of Lords, notably in the debates that led up to the passing of the Animals (Scientific Procedures) Act of 1986, the successor to the act of 1876, which had regulated experiments on living animals. The 1986 act steered a successful course between the wishes of the animal protection lobby and the needs of medical and scientific research; he was familiar with the problems both as a physiologist himself and as a member of the committee that had advised the Home Office on the operation of the 1876 act. He also helped in obtaining modifications to the Education Reform Bill of 1988, ensuring universities' autonomy as regards teaching programmes.

Adrian was closely connected with many of the famous academic families of Cambridge apart from through his parents. His wife, Lucy, is a granddaughter of Sir William Bragg; and his sister is the wife of Richard Keynes FRS, who is the son of the surgeon Sir Geoffrey Keynes, a great grandson of Charles Darwin, and nephew of Maynard Keynes and of the physiologist A V Hill.—ANDREW HUXLEY

Richard Hume Adrian, who was professor of cell physiology at the University of Cambridge 1978-92, died 4 April. Born 16 October 1927. Educated Swarthmore High School, United States; Westminster School, London; Trinity College, Cambridge; University College Hospital (MB, BChir 1951). National service in Royal Army Medical Corps 1952-4. At University of Cambridge was appointed demonstrator in 1956, lecturer in 1961, reader in experimental biophysics 1968, and professor of cell physiology 1978. Research fellow of Corpus Christi College 1956, staff fellow of Churchill College 1961-81. Master of Pembroke College 1981-92, vice chancellor of University of Cambridge 1985-7. Trustee of British Museum since 1979 and of Natural History Museum 1984-8. Awarded fellowship of Royal Society 1977. Member of General Medical Council 1980-2, Home Office's advisory committee on animal experiments 1981-5, British Library's board since 1987. Prime warden of Goldsmiths' Company 1990-1. Succeeded father as second Baron Adrian 1977.

E R WINTON

MRCGP, DPH, DCH

Edward Winton was a clear minded doctor with fine diagnostic skills and an uncanny ability to recognise serious illness in its early stages. He was suitably firm with patients who required the disciplinarian touch but compassionate to those in difficult circumstances.

For much of his career he worked as a singlehanded practitioner, but he found time to be an active member of the local branch of the BMA. In 1963 he suffered subacute bacterial endocarditis, from which he almost died; he recovered, but its consequences forced him to retire in 1980. Open heart surgery allowed him to spend his retirement pursuing his love of London and anything to do with Japanese culture. Cardiac deterioration and supervening carcinoma of the prostate led to his death. He is survived by his wife, Ruth; three children, one of whom (me) is a consultant psychiatrist; and two grandchildren.—F WINTON

Edward Rufus Winton, who was a general practitioner in Mottingham, south east London, 1946-80, died 10 October aged 78. Studied medicine at King's College, London, and St George's Hospital (MRCS, LRCP 1939). Served in Royal Army Medical Corps 1940-5 in north Africa (mentioned in dispatches) and Europe.

J H H BALMER

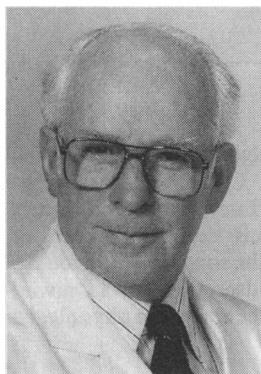
FRCS(ED), FRCSI

John Herbert Horatio (a name to which he would seldom admit and never respond) Balmer was always referred to as Jack or Big Jack. He was well known locally as the retired senior surgeon of Craigavon Area Hospital and more widely as the medical officer of Northern Ireland's football team. In 1950 he was appointed a surgeon to Lurgan Hospital; his skill is part of local folklore.

Jack's loves—apart from his wife, Alma—were fourfold: his work, his football, his cars, and his fishing. In 1962 his love of football led to a lifelong

Advice

Obituaries must be submitted exclusively to the *BMJ*; they should be under 250 words and must be submitted within three months of the person's death. We welcome self written obituaries (in the first person) and good quality photographs, and, as a medical journal, we encourage authors to include the cause of death.



J H H Balmer

association with the game, as medical officer first to Glenavon Football Club and later to the Northern Ireland team, with whom he travelled the world. When he was not working or "playing football" Jack could be found in the west of Ireland fishing for salmon. There, local custom demanded that he should always be addressed as Surgeon Balmer. He used to speak of his "American knighthood"—bestowed by a visitor who, not fully understanding the Irish brogue of his fishing ghillie, thought that he had enjoyed a week's fishing in the company of Sir John Balmer.

Jack was a delightful colleague with whom it was a pleasure to work because of his common sense, skill, and wit. He is survived by Alma; his son, Herbert; and his daughter, Jacqueline.—JOHN GALWAY

John Herbert Horatio Balmer, who was a consultant surgeon to Craigavon Area Hospital until 1980, died 9 October. Born Republic of Ireland, 14 October 1915; educated King's Hospital School, College of Surgeons in Dublin (LRCP&LM, LRCSI&LM 1939). During war served with 11th Hussars in Royal Army Medical Corps in north Africa, Italy, and Germany (mentioned in dispatches twice), becoming lieutenant colonel.



Major General R J Gray

Major General R J GRAY

CB, FFPHM

John Gray's father, who was a doctor in the south of England at the time, ensured that his son would be born a Northumbrian by transferring his wife to Newcastle upon Tyne for the birth. John had a varied career in the Royal Army Medical Corps, serving from the year of his graduation, 1939, until 1974 and achieving the rank of major general. On retiring from military service he joined the British Red Cross Society as medical adviser and was responsible for the medical policy and its implementation. He was also responsible for the compilation and issue of the *Red Cross First Aid Handbook* and for overseeing the teaching of first aid. The establishment of the national joint emergency executive committee for coordinating the Red Cross and St John Ambulance in support of military medical units in time of war was largely his work and was put to use during the Gulf crisis. He was awarded the badge of honour of the Red Cross Society in 1983.

During 1977-81 he was a member of the council of colonels commandant of the Royal Army Medical Corps, and in 1978 he was the representative colonel commandant. He chaired the BMA's armed forces committee from 1981 to 1985 and the RAMC Association from 1982 to 1988.

John was a natural leader, being single minded and dedicated to whatever he set his mind to. Nevertheless, he had an open mind and always listened to others' opinions. He was modest, humorous, and friendly. He always saw the funny side but was down to earth and valued essentials; he did not appreciate fudging.—S H JANIKOUN

Reginald John Gray, who was director of medical services to UK land forces 1972-3 and then chief medical officer to the British Red Cross Society 1974-83, died 28 October aged 78. Born 26 November 1916; educated Rossall School, Fleetwood, and University of Durham Medical School (MB, BS 1939). Appointed lieutenant in Royal Army Medical Corps 1939 and served in India and Burma. Deputy assistant director of medical services in British army of the Rhine and Middle East land forces 1947-51. Served in War Office as deputy assistant director general 1951-3 and assistant director general 1954-7. Commanded military hospitals in Malta and Germany and Queen Alexandra Military Hospital, Millbank, London, 1957-67. Returned to Ministry of Defence till 1972, being promoted to major general, and then became director of medical services to UK land forces. Appointed officer brother of Order of St John of Jerusalem 1957 and commander 1971; honorary surgeon to Queen 1970-3; awarded CB 1973.

A C MULVANEY

MB, BS, DRCOG

Adrian Mulvaney was in general practice in Studley, Warwickshire, for many years and subsequently on Alderney. He had a warm personality and took a tremendous interests in people and their relationships. He was a good listener and showed genuine concern for his patients. Greatly influenced by his schooling, he was thoughtful and a committed Roman Catholic.

Adrian had a prodigious memory for old friends and their histories. Witty and good humoured, he loved writing and receiving letters and never missed an opportunity to renew an acquaintanceship. Friends will remember his enigmatic letters, which usually finished up around the address at the top or on the envelope.

History was for Adrian an abiding interest; by nature a romantic, he delighted in recounting stories based on his considerable knowledge. As a younger man he was a keen all round sportsman and for years played cricket for Studley. He delighted in country walks and for his last 22 years was a member of a group of former students at University College Hospital who join together for an annual walking holiday. He died of motor neurone disease and is survived by his wife, Kath; three children; and five grandchildren.—GORDON R J MOODIE

Adrian Collins Mulvaney, who was a general practitioner in Studley, Warwickshire, 1951-78, and Alderney 1978-85, died 27 November. Born Douglas, Isle of Man, 19 November 1922; educated St Joseph's College, Dumfries, and University College London and University College Hospital (MB, BS 1948).

C A HOPKINS

FRCP

Charles Hopkins had a lifelong association with the Wirral and Liverpool. During his service in the army he was posted to Somalia, where the poverty and the suffering due to malnutrition and tuberculosis made a lasting impression on him. When he returned to Liverpool career prospects were bleak. In 1952 he gained the post of registrar in chest diseases only to contract tuberculosis himself, but happily this rapidly responded to chemotherapy. He became an assistant chest physician and finally, in 1960, a consultant and deputy physician superintendent at Aintree (Fazakerley) Hospital. He was a thoughtful and self effacing doctor who understood the rapid changes that were taking place in chest medicine and had the vision to develop a modern service.

Outside medicine Charles's interests were gardening and music. With his wife, Molly, he designed a house with a large formal garden, which was always at its most spectacular in the spring. After Molly's death in 1987 he discovered an interest in music and became a great supporter of the Royal Liverpool Philharmonic Orchestra. Although Charles has no immediate surviving family, he had a wide circle of friends and in his quiet, unassuming way was a support and help to many. Those friends will miss his wit and sense of humour, his enthusiasm, and his views and philosophy of life.—JOHN EARIS

Charles Arthur Hopkins, who was a consultant physician and deputy physician superintendent at Fazakerley Hospital, Liverpool, 1960-82, died 23 November aged 75. Born War-rington, 7 October 1919; educated Caldý Grange Grammar School, Wirral, and University of Liverpool (MB, ChB 1943). Captain in Royal Army Medical Corps in east Africa command 1945-7. Appointed registrar at Walton Hospital, Liverpool, 1947; senior registrar at Cardiothoracic Centre, Broadgreen Hospital, Liverpool, 1954; assistant chest physician at Fazakerley Hospital 1957. Also consultant chest physician to Walton prison and clinical lecturer at University of Liverpool.